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“Press”

Claims

1. Press comprising a slide and lower platen, each carrying compression molds, and further comprising at least one center platen, which carries compression molds on its top side and underside, characterized in that the center platen (8) is arranged height-adjustable and displaced by the slide (4) during the molding cycle.
2. Press according to Claim 1, characterized in that there is provided a lifter (10) that guides the center platen (8) back to its normal position after a molding cycle has completed.
3. Press according to claims 1 and 2, characterized in that the lifter (10) is actuated by controlled pressure cylinders (13).
4. Press according to claims 1 and 2 characterized in that the lifter (10) is spring-loaded.

5. Process for operating a press according to Claim 1, characterized in that after production of the upper molded part, the upper part (6a) of the upper mold 6 fastened on the slide (4) travels to a limit stop (14) in the lower portion (6b) of the upper mold and only thereafter is the center platen (8) displaced to produce the lower molded part.
6. Process for operating a press according to Claim 1, characterized in that the slide (4) carries the center platen (8) during its upward motion and both molded parts are produced in the vicinity of the lower dead center of the slide (4).

“Press”

The invention relates to a press comprising a slide and lower platen, each carrying compression molds, and further comprising at least one center platen, which carries compression molds on its top side and underside.

There is known from DT-OS 22 47 093, a platen press, particularly for manufacturing chip boards and the like, which demonstrates an upper yoke, a lower yoke and a stationary center yoke, which is pressurized on its top side and underside by separated rams. With a press of this type, it is indeed possible to produce two molded parts in one operating cycle, but the constructional cost for doing so is very large, because separate rams have to be arranged both in the upper yoke and also in the lower yoke.

It is therefore the object of the present invention to configure a press of the above art in such a manner that it is possible to manufacture two workpieces or workpiece sets in one operating cycle with only small additional constructional expense.

The object is achieved according to the present invention, in that the center platen is arranged height-adjustable and displaced by the slide during the molding cycle.

In a preferred embodiment of the invention, there is provided a lifter that guides the center platen back to its normal position after a molding cycle has completed.

The lifter may be actuated either by controlled pressure cylinders or else by spring loading.

A press of this type can be actuated in an advantageous manner by two different procedures, each needing only one other control system. And it is indeed now possible that, after production of the upper molded part, the upper part of the upper mold fastened on the slide travels to a limit stop in the lower portion of the upper mold and only thereafter is the center platen displaced to produce the lower molded part. This procedure assumes that the lifters exert a support force on the center platen and that this force is at least somewhat larger than the force that the slide exerts on the top side of the center platen during the actual molding cycle. Moreover to produce the second molded part, the slide force must then overcome the retention force of the lifter.

It is seen in another possible procedure for operating such a press that the slide carries the center platen during its upward motion and both molded parts are produced in the vicinity of the lower dead center of the slide.

The subject matter of the invention shall be explained in more detail below on the basis of an exemplary embodiment illustrated in the drawing. The drawing depicts a press according to invention in front view, partially in longitudinal section.

The press 1 demonstrates, in a manner known in the art, a crown 3 which rests on a lateral pair of stands 2 and in which the slide 4 is mounted. The underside of slide 4 and the top side of the lower platen 5 demonstrate dovetailed guides for accommodating compression molds 6,7. A height-adjustable center platen 8, which serves as compression mold carrier and carries the lower part 6b of the upper compression mold 6 on its top side and the top part 7a of the lower compression mold 7 on its underside, is arranged between slide 4 and lower platen 5. For guiding the center platen 8, there are provided rods 9, which penetrate the center platen 8 and which are also provided in the upper part 6a of the top compression mold 6 for the pilot holes.

In the illustrated exemplary embodiment, the lifter 10 is formed by pillars 11, which support themselves on a pressure cheek 12, which controllable pressure cylinders 13 act upon.

Stop faces 14 serve as limit stops for restricting the paths in the different phases of the molding cycle.

It is obvious that a plurality of center platens may also be provided in place of a height-adjustable center platen without thereby somewhat changing the basic structure and possible operating methods of this type of press.

The center platen may be an integrated component of the press or be formed by the mold, possibly by appending an intermediate platen.